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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,419	06/24/2003	Duane Q. Huynh	SJO920020001US1	4325
7590 09/13/2007 Hitachi Global Storage Technologies Intellectual Property Law 5600 Cottle Road (NHGB/014-2) San Jose, CA 95193			EXAMINER CHEN, TIANJIE	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 09/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/603,419

Applicant(s)

HUYNH, DUANE Q.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-4, 6, 7 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4, 10-12, 17, 18 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***Non-Final Rejection (RCE)***

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/12/2007 has been entered. Claims 2-4, 6, 7, 10-18 are pending; wherein claims 13-16 are withdrawn from consideration and claims 2-4, 6, 7, 10-12, 17, and 18 are under examination.

#### ***Specification***

2. The disclosure is objected to because of the following informalities:

- In p. 4 line 13; "and area" should be changed to --an area--.

Appropriate correction is required.

#### ***Claim Objections***

3. Claim 4 is objected to because of the following informalities:

In claim 4, line 2; "leads a" should be changed to --leads, a--.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 2-4, 10-12, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Shin (US 2003/0086214).

Claim 17, Shin shows a damped flexible cable (FPC) for use in a magnetic memory device (Fig. 6C; [0048] to [0052]) including: an electrically conductive lead 47; a vibration damping material 40 disposed adjacent to the electrical lead; and an insulating material (adhesive) surrounding the vibration damping material and at least a portion of the electrical lead, wherein the vibration damping material is configured to be relatively wider in areas marked by 40 wherein more damping is requires and relatively narrowing to zero elsewhere (Figs. 4 and 6).

Claim 18, Shin shows a damped flexible cable (FPC) for use in a magnetic memory device (Fig. 6C; [0048] to [0052]) including: an electrically conductive lead 47; a vibration damping material 40 disposed adjacent to the electrical lead; and an insulating material (adhesive) surrounding the vibration damping material and at least a portion of the electrical lead, wherein the vibration damping material is configured to be relatively thicker areas marked by 40 wherein more damping is requires and relatively thinning to zero elsewhere (Figs. 4 and 6).

Claim 2, Shin further shows that the vibration damping material is completely enclosed within the insulation, and wherein end portions of the electrically conductive lead is inherently exposed for connecting the circuit.

Claim 3, Shin further shows that the vibration damping material 40 includes first and second layers disposed at opposite sides of the electrically conductive lead.

Claim 4, Shin further shows a plurality of electrically conductive leads, a portion of which are parallel to one another.

Claim 10, Shin shows a head suspension assembly in Fig. 4 for use in a magnetic recording device, including: a suspension 66, a magnetic transducer 65 connected with the suspension; and a flexible cable 41 electrically connected with the transducer, the flexible cable further comprising: an electrically conductive lead 47; a vibration damping material 40 disposed adjacent to the electrical lead; and an insulating material (adhesive) surrounding the vibration damping material and at least a portion of the electrical lead; wherein the vibration damping material is configured to be relatively wider in areas wherein more damping is required and relatively narrower elsewhere (Fig. 4).

Claim 11, Shin shows a magnetic hard disk drive, comprising: a housing; a magnetic disk rotationally mounted within the housing; a head suspension assembly pivotally mounted within the housing; an amplifier circuit; and a flexible cable electrically connected with the amplifier circuit, the flexible cable further comprising: an electrically conductive lead; a vibration damping material disposed adjacent to the electrical lead; and an insulating material surrounding the vibration damping material and at least a portion of the electrical lead; wherein the vibration damping material is configured to be relatively wider in areas wherein more damping is required and relatively narrower elsewhere (Fig. 4).

Claim 12, Shin shows a flexible cable for use in a magnetic memory device, including: a first layer of electrically insulating material 45; a second layer of

electrically insulating material 43; an electrical lead 47; and a vibration damping material 40; wherein the electrical lead and the vibration damping material are sandwiched between the first and second layer of electrically insulating material; wherein the vibration damping material is configured to be relatively wider in areas wherein more damping is required and relatively narrower elsewhere (Fig. 4).

***Allowable Subject Matter***

5. Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims:

- With regard to Claims 6 and 7, as the closest reference of record, Shin (US 2003/0086214) shows a damped flexible cable (FPC) for use in a magnetic memory device (Fig. 6C; [0048] to [0052]) including: an electrically conductive lead 47; a vibration damping material 40 disposed adjacent to the electrical lead; and an insulating material (adhesive) surrounding the vibration damping material and at least a portion of the electrical lead, wherein the vibration damping material is configured to be relatively wider/thicker in areas wherein more damping is required and relatively narrower/thinner elsewhere (Figs. 4 and 6); but fails to show that the damping material covers an area at least 1/3 or 1/2 the area of the flexible cable.
- Applicant asserts; this invention provides means for effectively damping vibration in a flexible cable of a disk drive device, while minimizing the use of additional components (Specification, p. 3).

***Response to Arguments***

6. Applicant's arguments filed 08/05/2005 have been fully considered but they are not persuasive. The newly cited limitations exist in the prior art as described in rejection presented above.

- With regard to claim 17, Applicant argues; upon inspection of the Shin reference, it can be seen that Shin does not teach a damped flexible circuit wherein the damping material has a width that changes at all.

Examiner's answer: Shin does show the changes of the width in Fig. 4.

- With regard to claim 18, Applicant does not present any argument.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**TIANJIE CHEN**  
**PRIMARY EXAMINER**